Implementation of Clinical Practice Guidelines by the Use of World-Wide-Web Format Connected to Direct Physician Order Entry

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Clinical practice guidelines (CPGs) that are nationally approved, expert-formulated, and evidence-based have the potential to improve health care by setting standards, educating patients and providers, reducing inappropriate care and costs, and increasing appropriate care and quality. Even after CPGs have been disseminated, however, provider nonadherence to them bars their successful implementation.[1] The Veterans Health Administration (VA) recently mandated that every VA Hospital in each Veterans Integrated Service Network (VISN) implement 12 new CPGs before October 1, 1997. In February 1997 the 12 CPGs (including those for chronic obstructive pulmonary disease, or COPD, etc.) for VISN 8 (Florida and Puerto Rico) were selected for VISN-wide implementation.

In contrast to dissemination of CPGs, which is easy, the actual implementation of CPGs is problematic. We are solving this problem by 1) using World-Wide-Web format, HTML, and hyperlinks to display the CPGs on physician workstation PCs,[2,3] 2) presenting the VISN formulary and order sets, which are essentially more flexible quick codes, on a Web page, 3) entering corresponding order sets (for specific drugs, tests, procedures, and consultations) into the Decentralized Hospital Computer Program (DHCP, now called VISTA), which is the VA's Hospital Information System and includes the functionalities of direct physician order entry and results reporting, and 4) adding the user-friendly and keystroke-sparing step of connecting by mouse clicks the actions recommended by the CPG's algorithms on the Web pages to both the direct physician order entry (POE) and the laboratory, procedural and other results in the DHCP.

Since before May 1996 our General Medical Service residents (15 rotating at a time each month) have been entering 95 to 100% of all orders by POE. We have hypothesized that connecting hyperlinked CPGs to direct POE (allied with the repetitive monitoring and review of CPG adherence through database techniques) would save our physicians much time, add to their education, assure their actual and consistent implementation of the guidelines, and foster user satisfaction. These benefits are especially favored by the improvements we are instituting incrementally in direct response to continual user feedback. Already the early exposure of our physicians to these computerized CPGs has evoked their enthusiasm and much useful feedback. Before October 1997 the same CPGs will be computerized and implemented in all seven VA Hospitals in VISN 8 and are expected to improve care and medical outcomes in many patients.

References

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